

model parameters resulted in incremental cost effectiveness values ranging from \$19,612–\$56,120 per additional life-year gained. **CONCLUSIONS:** The increase in survival time associated with adding goserelin to a conventional radiation treatment strategy comes with additional costs. However, the addition of goserelin to radiation is cost-effective based on the often cited \$50,000/per life-year gained incremental cost-effectiveness threshold.

**PCN14**

**AN ECONOMIC EVALUATION OF ANASTROZOLE VERSUS TAMOXIFEN AS ADJUVANT THERAPY IN POSTMENOPAUSAL WOMEN WITH EARLY BREAST CANCER FROM A US HEALTH CARE PERSPECTIVE**

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**OBJECTIVES:** Results from the ATAC trial indicated that anastrozole was superior to tamoxifen for disease free survival (DFS) in the adjuvant treatment of postmenopausal women with hormone receptor-positive (HR+) early breast cancer, at median follow up of 33 months (Lancet 2002;359:2131–39) and 47 months (Cancer 2003;98:1802–10). We calculated the incremental cost-effectiveness ratio (ICER) per life year gained (LYG) for anastrozole compared to tamoxifen from the US health care perspective, using the recent 47 month data. **METHODS:** A probabilistic Markov model was developed using the updated ATAC data to project outcomes for both anastrozole and tamoxifen to 25 years by extrapolating pooled Kaplan-Meier curves using parametric statistical methods. It was assumed that recurrence rates after the maximum 5-year treatment period would be equivalent in the anastrozole and tamoxifen groups (a conservative approach). General mortality data were from US Census 2000. Resource utilization data were obtained from published literature and structured interviews with 9 US oncologists. Drug costs were based on average wholesale price and the generic cost of tamoxifen. Other unit costs (2002 US\$) from standard national sources and literature were used. Costs and benefits were discounted at 3%. Sensitivity analyses were conducted. **RESULTS:** In a cohort of 1000 patients modeled over 25 years, anastrozole was estimated to lead to 145 discounted LYG at an additional cost of \$3.6 million. The discounted ICER of anastrozole compared with tamoxifen was estimated to be \$25,169/LYG (95% CI \$5925–\$48,593). Acceptability curves showed that the estimated cost/LYG at 25 years was <\$50,000 with a probability >90%. The result compared favorably with commonly accepted thresholds for cost-effectiveness and was robust to all parameters in sensitivity analyses, including adverse events. **CONCLUSIONS:** Based on these findings, anastrozole should be a cost-effective alternative to tamoxifen for the adjuvant treatment of postmenopausal women with HR+ early breast cancer.

**PCN15**

**DIRECT MEDICAL COSTS OF MANAGING TOXICITIES RELATED TO TAXANE THERAPY FOR METASTATIC BREAST CANCER IN THE UNITED STATES**

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**OBJECTIVE:** The use of taxane therapy (paclitaxel and docetaxel) is common for the treatment of metastatic breast cancer (MBC) and is associated with the development of severe toxicities. These toxicities are often dose limiting and can reduce the

effectiveness of taxane therapy. There are limited data on the economic consequences of managing toxicities. The objective of this analysis is to quantify the direct medical costs of managing taxane-related toxicities in patients with MBC. **METHODS:** An economic model was created to estimate the direct medical costs associated with the management of taxane-related toxicities. Model inputs were obtained from published literature, clinical trial data, and expert opinion. Primary model inputs included incidence of toxicities, costs of managing toxicities, and the frequency of taxane use in patients with MBC. Costs were inflated to 2003 dollars using the Medical Consumer Price Index. **RESULTS:** The estimated costs of managing taxane-related toxicities were \$7251 per patient treated with paclitaxel and \$17,580 per patient treated with docetaxel. The higher cost for patients treated with docetaxel was primarily driven by a higher incidence of adverse events. Disease prevalence estimates and treatment patterns indicated 55,783 patients with incident cases of MBC would receive taxane therapy annually in the U.S., with 38% receiving paclitaxel and 62% receiving docetaxel. The annual direct medical costs associated with managing taxane-related toxicities in the U.S. are approximately \$762.4 million. **CONCLUSIONS:** Direct medical costs associated with the management of toxicities are considerable although disease progression costs related to the dose-limiting effects of toxicities were not modeled. Reduction in the incidence and/or severity of taxane-related toxicities could result in substantially lower medical expenditures for health care payers.

**PCN16**

**ECONOMIC BURDEN OF PROSTATE CANCER AMONG HOSPITALIZED PATIENTS**

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**OBJECTIVES:** Prostate cancer is the most common non-skin cancer in men in the United States. In 2003, the American Cancer Society estimated that 220,900 men will be diagnosed with prostate cancer and 28,900 men would die. Hospitalization data provided an opportunity to estimate the economic burden of prostate cancer and examine what factors were associated with spending. The objectives are to describe the demographics of the hospitalized prostate cancer patients, and to explore factors contributing to spending on prostate cancer hospitalization. **METHODS:** Nationwide Inpatient Sample 1999 data was used. ICD-9 code for prostate cancer (185) was used to extract patients with prostate cancer as the primary diagnosis. 2032 men were included in the study. Descriptive statistics on patient demographics was produced and multivariate regression was conducted to examine factors associated with hospital expenditure on prostate cancer. The dependent variable was total charges. The independent variables included age in years at admission, died during hospitalization, number of diagnoses and number of procedures on this record, location of hospital, teaching status of hospital, length of stay, admission source, expected primary and secondary payer, region of hospital, and income. SPSS 10.0 was used for all statistical analyses. **RESULTS:** The average total charge was \$13,242.50. Higher total charges were associated with the following variables: younger age, Hispanic origin, admitted from another hospital, alive at discharge, more procedures performed during hospitalization, increased length of stay, and urban, western and non-teaching hospital, and lower incomes. **CONCLUSIONS:** This study provided insight on hospital expenditures for prostate cancer patients and can be used to develop strategies to reduce unnecessary total charges.